

Anthrax

What is anthrax?

Anthrax is a serious disease caused by *Bacillus anthracis*, a bacterium that forms spores. There are three types of anthrax: cutaneous (affecting the skin), inhalation (affecting the lungs), and gastrointestinal (affecting the digestive system).

Who gets anthrax?

Anyone can get anthrax, but it is a rare disease in the U.S. Anthrax occurs naturally in certain wild and domestic animals (e.g., cattle, sheep, goats, camels, etc.), most commonly in South and Central America, Southern and Eastern Europe, Asia, and Africa. People who get anthrax usually become infected from contact with infected animals or with meat or products (such as hides or wool) from infected animals while traveling in the countries where the disease is more common or from products imported from those countries.

How is anthrax spread?

Anthrax is not known to spread from one person to another. Anthrax can be spread three ways: (1) through skin contact with anthrax spores, such as by touching or handling hides or wool from infected animals; (2) through inhaling anthrax spores from infected animals; (3) eating contaminated, undercooked meat from infected animals.

What are the symptoms of anthrax?

The symptoms of anthrax are different, depending on the type of exposure:

- **Cutaneous:** The first symptom is a small sore that develops into a blister. The blister then develops into a skin ulcer with a black area in the center. The affected area does not usually hurt.
- **Gastrointestinal:** The first symptoms are usually nausea, loss of appetite, bloody diarrhea, and fever, followed by severe stomach pain.
- **Inhalation:** The first symptoms may feel like a cold or the flu and can include a sore throat, mild fever, cough, and muscle aches. Within a few days, however, the breathing problems get much worse and become quite severe. A person with inhalation anthrax will be sick enough to need to be in a hospital. In 2001 in the United States, about half of the cases of inhalation anthrax that resulted from bioterrorism ended in death.

Anthrax

May 2013 – page 2

How soon after exposure do symptoms appear?

Symptoms can appear within seven days of being exposed to anthrax spores for all three types of anthrax. For inhalation anthrax, symptoms can appear within a week or can take up to 42 days to appear.

How is anthrax diagnosed?

Special laboratory tests are needed to confirm the diagnosis. The diagnosis can be suspected when x-rays show specific changes in the lungs that inhalation anthrax causes.

What is the treatment for anthrax?

People with anthrax need to take antibiotics, usually for 60 days. Treatment is usually more successful if it is started early. Cutaneous anthrax is easier to cure than gastrointestinal and inhalation anthrax.

How can anthrax be prevented?

If a person has been exposed to anthrax but is not yet sick, healthcare providers will prescribe antibiotics to prevent infection. A vaccine to prevent anthrax is available to those at higher risk of routine exposure to anthrax, including certain members of the U.S. armed forces, lab workers, and workers who may enter or re-enter contaminated areas. In the event of an attack using anthrax as a weapon, anyone exposed to anthrax would likely get the vaccine.

Can anthrax be used for bioterrorism?

Anthrax spores can be used as a bioterrorist weapon, as was the case in 2001, when *Bacillus anthracis* spores were intentionally distributed through the United States Postal System, causing 22 cases of anthrax, including 5 deaths.

How can I get more information about anthrax?

- 1) If you have concerns about anthrax, contact your healthcare provider.
- 2) Call your local health department. A directory of local health departments is located at <http://www.vdh.virginia.gov/LHD/index.htm>.
- 3) Visit the Centers for Disease Control and Prevention website at <http://emergency.cdc.gov/agent/anthrax/index.asp>.